

Sunflower for Seed

Introduction

Sunflower (*Helianthus annuus*) is classified as either an oil type or a confection (non-oil) type, each with its own distinct market. Seeds from oil types are processed into vegetable oil or as meal in livestock feed. Most confection type seed is sold, with or without the hull, as snack foods. While either type can be packaged for bird seed, the confectionery type is grown in Kentucky for this purpose. Sunflowers are not recommended for oil crop production here.

Marketing

Most sunflowers grown in Kentucky are sold to the birdseed market. Producers can sell to either a regional birdseed packager or to a local retail store. Selling packaged seed directly off the farm is another possibility. There may be additional costs to transport the seed to baggers.

Market Outlook

The national domestic and export demand for sunflower seed for both bird seed and as a snack food is expected to grow. Sunflower is considered the premium component in many bird seed mixes, and as such, receives a higher price than other ingredients, such as millet and sorghum.

Production Considerations

Site selection and planting

Sunflower grows well in a variety of soil types, as long as the site is well drained. Seed is planted in Kentucky between April 1 and May 10 with any conventional corn planter. Planting in rows makes



it possible to cultivate for weed control. Crop rotation is critical and sunflower should not be planted in the same field more than once every 3 or 4 years.

Pest management

Insects that feed on the flowers, such as the larvae of several moths, pose the most serious threat to sunflower. Scouting to monitor populations can help the grower determine when and how often insecticides should be applied. Potential disease problems include Sclerotinia white mold, downy mildew, rust, and Verticillium wilt. Growing resistant varieties and following a good crop rotation program can help reduce the likelihood of disease.

Sunflower is a strong competitor with most weeds; however, early season weed control is important for good yields. Weeds can be controlled with herbicides, tillage, or a combination. Birds can become a serious problem once the seeds have developed, especially if sunflowers are planted near potential roosting sites or water.



Harvest and storage

Sunflower seed is mature when the back of the flower head is yellow; however, it is generally not harvested until the head turns brown on the back. Any conventional grain combine with a sunflower head attachment can be used for harvest. Some growers harvest when the moisture content is higher to avoid bird damage and seed shattering, thereby increasing yields. An approximate yield of 1,000 to 2,000 pounds per acre can be expected. Seed should be cleaned and dried properly before storing.

Labor requirements

Labor needs per acre are approximately 2 hours for production and 1 hour for harvest. Additional labor would be needed for any specialty production and/or marketing.

Economic Considerations

Initial investments include land preparation and purchase of seed. Sunflowers will generally return \$20 or less above operating and ownership costs (returns to land and management). Currently, this crop will not generate positive returns to land, labor, and management in Kentucky due to the distance of transporting sunflower to market. The nearest known markets are located in Ohio and Missouri. With closer birdseed markets, returns could approach \$60 to \$90 above operating and ownership costs and may generate positive returns to land and management.

Selected Resources

- Grain and Forage Crop Guide for Kentucky, AGR-18 (University of Kentucky, 2007)
<http://www.ca.uky.edu/agc/pubs/agr/agr18/agr18.pdf>
- Alternative Field Crops Manual: Sunflower (University of Minnesota and University of Wisconsin, 1990)
<http://www.hort.purdue.edu/newcrop/afcm/sunflower.html>
- High Plains Sunflower Production Handbook (Kansas State University in cooperation with Colorado State, University of Nebraska, University of Wyoming and USDA-ARS, 2009)
<http://www.oznet.ksu.edu/library/crpsl2/samplers/mf2384.asp>
- National Sunflower Association
<http://www.sunflowernsa.com/default.asp>
- Single Crop Sunflower Production (Ohio State University)
<http://ohioline.osu.edu/agf-fact/0107.html>
- Sunflower Overview and Production Guide (Thomas Jefferson Institute, Missouri, 2008)
<http://www.jeffersoninstitute.org/sunflower.php>
- Sunflowers (double-crop) Cost-Return Budget (Thomas Jefferson Institute, Missouri)
http://www.jeffersoninstitute.org/pubs/budgets/double_crop_sunflower_budge.pdf